

Work Order ID 55643

January 26, 2010 1:11:59 PM

PRELIMINARY ISSUE

Page 1

Item ID: D4021-9

Accept

Revision ID:

Item Name: Bushing

Start Date: 1/26/10

Start Qty: 10.00

Required Date: 1/27/10

Req'd Qty: 10.00

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

Draw Nbr

Revision Nbr

D4021

A-PRELIM

P3

100

0.00



Hardinge

Memo

0.00

Hardinge CNC Lathe Small

TURN AS PER FOLIO FA 868 AND DWG D4021

DWG REV: Preli.

FOLIO REV: AA

DEBURR

110

QC2- Inspect parts off machine FAI/FAIB

0.00

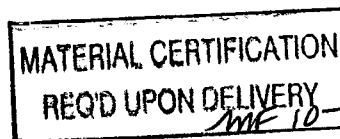


QC

Memo

0.00

Quality Control



Jan 10.01.26

(4)

\$.

Jan 10.01.26

(4)

\$.

Work Order ID 55643

January 26, 2010 1:12:00 PM



Item ID: D4021-9

Accept



Setup Start



Revision ID:

Stop



Item Name: Bushing

Start Date: 1/26/10 Start Qty: 10.00



Cust Item ID:

Required Date: 1/27/10 Req'd Qty: 10.00



Customer:

Reference:

Run Start



Approvals: Process Plan:

Date:

Tooling:

Date:

Stop



QC:

Date:

SPC (Y/N):

Date:

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

120

QC8- Inspect parts - second check

0.00

27 8/6/1/26



QC

Memo

0.00

Quality Control

(4) f

130

Identify as per dwg & Stock Location: Basket

0.00

PD 10.01.26 (4)



Packaging

Memo

0.00

Packaging

140

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

Prototype
Basket test
10.01.30

MF 10-1-27

POSITIVE RECALL
EFFECTIVE 10.01.26 AUTH
RELEASED DATE

Picklist Print

January 26, 2010 1:11:59 PM

Page 1

Work Order ID: 55643



Parent Item: D4021-9



Parent Item Name: Bushing

Start Date: 1/26/10

Required Date: 1/27/10

Comments: IPP REV:A NEW ISSUE 09-11-23 JLM VERIFIED BY:DD

Start Qty: 10.00

Required Qty: 10.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
M304R.500		Purchased	No			100	f	41.1000	0.8737			



304 SS roundbar .500



<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		

Main Warehouse

MAT	41.1	
108415	2	
111323	1.16	
113006	37.94	

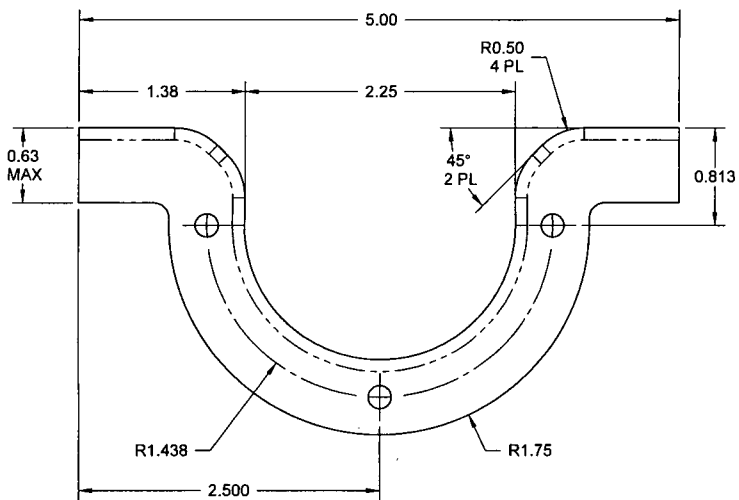
~~*11352~~

141323?

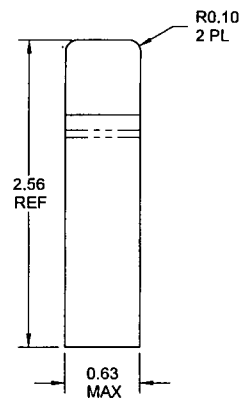
_____ .874 "

~~.874~~

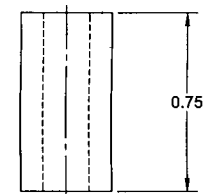
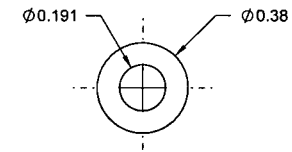
✓ w/ 10.01.26



D4021-7 HOOP



D4021-9 BUSHING



PRELIMINARY

PRELIMINARY ISSUE

W/O 55643

- NOTES:**
- 1) MATERIAL-7: 304/316 STAINLESS STEEL BAR, PER ASTM A276
PER DART SPEC M304B
 - 2) FINISH: NONE
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 - 6) IDENTIFICATION: N/A
 - 7) WEIGHT -5: 0.80 lbs
-7: 0.02 lbs
- 9: 304/316 STAINLESS STEEL ROUND BAR, PER ASTM A276
PER DART SPEC M304R

DESIGN	AJS	DART AEROSPACE LTD	
DRAWN	AJS	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. A
MFG. APPR.		D4021	SHEET 3 OF 3
APPROVED		TITLE	SCALE
DE APPR.		MISC MACHINED PARTS 350 BASKET	NTS
DATE	09.12.03	COPYRIGHT © 2008 BY DART AEROSPACE LTD	
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.			

Date: 09/04/02

Batch No: 111323

Supplier: Magna

Dart P/O: 8479

Packing Slip: Yes ☐ No ☐
Invoice: Yes ☐ No ☐
Receipt: Cash ☐ Cr ☐

Release Note Attached: Yes ☒ No ☐ N/A ☐
Waybill Attached: Yes ☒ No ☐ N/A ☐
Shipment Complete: Yes ☒ No ☐ N/A ☐
QC6 Inspection: SA 09/04/02 N/A ☐
Work Order: N/A ☐

Discrepancies

Part Number	Description	Quantity Ordered	Quantity Received	Quantity Returned	Quantity Short	Comments
<u>B/a</u>	<u>See</u>					
	<u>Packing List</u>					

Initials of receiver (if shipment OK) Level 12

Production/Admin:

Date: 09/04/02
Received/Costing: 412 10637
Initial: CS

Location:



Magna Stainless
5775 Kieran St, Saint-Laurent QC H4S 0A3
Phone: (514) 339-1211 Watts: 1-800-363-6646 Fax: (514) 339-1105

INVOICE

Pg 1 of 1 I009104

SOLD TO:

DART AEROSPACE LTD
1270 ABERDEEN STREET
HAWKESBURY , ON
K6A 1K7

SHIP TO:

DART AEROSPACE LTD
1270 ABERDEEN STREET
HAWKESBURY , ON
K6A 1K7

MTR:Y

INVOICE DATE:	04/02/09
ORDER DATE:	04/01/09
SHIP DATE:	04/02/09
ORDER NUMBER:	W010139
PURCHASE ORDER:	8479

Currency	Sales Person	Ship Via	F.O.B.	Terms
CANADIAN DOLLARS	ERYCK BLAIS	NIR:R-557065-1	PREPAID	NET 30 DAYS

Ln	Back Ordered	Ordered	Unit	Description	Shipped	Price Per	Value
				STAINLESS ROUNDS			
		1	PC	SRB 304 3/8" x R/L L021850 13'5" 1 PC/6 LB	1 PC	12.00	CZ 12.00
		1	PC	SRB 304 1/2" x R/L L020290 12'1" 1 PC/8 LB	1 PC	24.00	CZ 24.00
		1	PC	SRB 304 3/4" x R/L L022515 12'1" 1 PC/18 LB	1 PC	52.00	CZ 52.00
		10	PC	SRB 303 3/4" x R/L L022546 12'1" 10 PC/184 LB	10 PC	55.00	CZ 550.00
				STAINLESS SHEET			
		8	PC	SSH 304 2B 16ga x 48" x 96" L023370 8 PC/672 LB	8 PC	170.00	1,360.00

RECEIVED APR 09 2009

04/03/09 11:34:27

Merchandise:	1,998.00
Surcharges:	
No Tax Costs:	
GST	99.90
Total Due:	2,097.90

Title to the goods sent out on this invoice remains with Magna Stainless Div of CSM ULC until such time as this invoice has been paid in full. Unless otherwise noted terms are 30 days. Interest accrues on all overdue accounts at the rate of 1.5% per month compounded monthly.

Q.S.T. # 1213236471
G.S.T. # 881565899 RT0001



Magna Stainless

5775 Kieran St, Saint-Laurent, Quebec H4S 0A3
Phone: (514) 339-1211 Watts: 1-800-363-6646 Fax: (514) 339-1105

PACKING LIST

I009104

Page: 1 of 1

SOLD TO:
DART AEROSPACE LTD
1270 ABERDEEN STREET

SHIP TO:
DART AEROSPACE LTD
1270 ABERDEEN STREET

HAWKESBURY, ON
K6A 1K7
Contact: CHANTAL

HAWKESBURY, ON
K6A 1K7
Ship Terms: PREPAID

STOCK

MTR:Y

2

Currency		Sales Person	Customer Phone	Customer Fax	Customer PO	
CANADIAN DOLLARS		ERYCK BLAIS	(613) 632-5200	(613) 632-1053	8479	
Sales Order	Terms	Ship Via		Date Ordered	Date Required	Date Shipped
W010139	NET 30 DAYS	NIR:R-557065-1		04/01/09	04/02/09	04/02/09

Ordered	Back Ordered	Unit	Description	Bundle #	Heat #	Shipped
1		PC	STAINLESS ROUNDS SRB 304 3/8" x R/L ✓			1
1		PC	SRB 304 1/2" x R/L ✓ 13'5" 6 LB / 1 PC	L021850	16750	1
1		PC	SRB 304 3/4" x R/L ✓ 12'1" 8 LB / 1 PC	L020290	16162	1
10		PC	SRB 303 3/4" x R/L ✓ 12'1" 18 LB / 1 PC	L022515	246611	1
			12'1" 184 LB / 10 PC	L022546	422249	10
8		PC	STAINLESS SHEET SSH 304 2B 16ga x 48" x 96" 672 LB / 8 PC	L023370	SC19200	8
Total Weight:						888 LB

Skids: 1

1/30/09

Received by:

Date:

Signature:

Dart Aerospace Ltd

Dart Aerospace Ltd
1270 Aberdeen St
Hawksbury, Ontario K6A 1K7
Phone: (613) 632-3336
Fax: (613) 632-4443

Receiving Slip

Date Apr 2, 2009	Page 1
Receipt Number RCP00010637	

Purchase From:

Magna Stainless
5775 rue Kieran
St Laurent, Quebec H4S 0A3
Canada

Ship To:

Main Finished Goods Location
Dart Aerospace Ltd
1270 Aberdeen St
Hawksbury, Ontario K6A 1K7

Reference	Description	Contact	Vendor Number	PO Number
			VC-MAG002	PO00008479

Vendor Item Number	Item Number	Description	Qty. Received	UOM	Unit Cost	Extended Cost	Arrival Date
	M303R0750	303 Round Bar 0.750 (NOTE: AISI 304/316 NOT ACCEPTABLE) MATERIAL: AISI 303 ROUND BAR B/N111323	121.0000	f	4.583333	CY 554.58	Apr 02, 2009
	M304R0375	304 ROUND BAR 0.375 (NOTE: AISI 303 NOT ACCEPTABLE) MATERIAL: AISI 304/316 STAINLESS STEEL ROD B/N111323	13.0416	f	1.000000	CY 13.04	Apr 02, 2009
	M304R500	304 SS roundbar .500 AS ABOVE B/N111323	12.0083	f	2.000000	CY 24.02	Apr 02, 2009
	M304R0750	304 SS Roundbar .750 AS ABOVE B/N111323	12.0083	f	4.333333	CY 52.04	Apr 02, 2009
	M304S16GA	304/316 Sheet .063 2B FINISH MATERIAL: AISI 304/316 AS PER 5513 OR 5524 B/N111323	256.0000	sf	5.312500	1,360.00	Apr 02, 2009

Comments:

DART

Purchase Order

Date Apr 01, 2009	Page 1
Purchase Order Number PO00008479	

Dart Aerospace Ltd
1270 Aberdeen St
Hawksbury, Ontario K6A 1K7
Phone: (613)632-9577
Fax: (613)632-1053

PAID
65070401

Vendor Address:

Magna Stainless
5775 rue Kieran
St Laurent, Quebec H4S 0A3
Canada
Phone (514) 339-1211
Fax (514) 339-1105

Ship To:

Main Finished Goods Location
Dart Aerospace Ltd
1270 Aberdeen St
Hawksbury, Ontario K6A 1K7

Reference	Contact	Vendor Number	PO Date	Terms	Ship Via	Expected Arrival
		VC-MAG002	Apr 01, 2009	N30	yours	Apr 09, 2009

Qty. Ordered	Item Number	Description	Expected Arrival	Drop-Ship	Unit Cost	UOM	Extended Price
144.0000	M2024T3S040 ✓	2024-T3 .040 sheet Comments: MATERIAL: 2024-T3 ALUMINUM SHEET PER AMS-QQ-A-250/4 OR AMS 4037	09/04/2009	No	4.479166	sf	645.00
96.0000	M2024T3S050 ✓	2024-T3 .050 sheet Comments: AS ABOVE	09/04/2009	No	5.520800	sf	530.00
120.0000	M303R0750 ✓ rec'd 12/18/09	303 Round Bar 0.750 Comments: MATERIAL: AISI 303 ROUND BAR (NOTE: AISI 304/316 NOT ACCEPTABLE)	09/04/2009	No	4.583333	f	550.00
12.0000	M304B0375X03000 ✓	M304 SS bar .375 x 3.00 Comments: MATERIAL: 304/316 STAINLESS STEEL BAR (NOTE: AISI 303 NOT ACCEPTABLE)	09/04/2009	No	12.083333	f	145.00
12.0000	M304R0375 ✓ rec'd 13.04.10	304 ROUND BAR 0.375 Comments: MATERIAL: AISI 304/316 STAINLESS STEEL ROD (NOTE: AISI 303 NOT ACCEPTABLE)	09/04/2009	No	1.000000	f	12.00
12.0000	M304R500 ✓ rec'd 12.06.08	304 SS roundbar .500 Comments: AS ABOVE	09/04/2009	No	2.000000	f	24.00
12.0000	M304R0750 ✓ rec'd 12.06.08	304 SS Roundbar .750 Comments: AS ABOVE	09/04/2009	No	4.333333	f	52.00
256.0000	M304S16GA	304/316 Sheet .063 Comments: MATERIAL: AISI 304/316 AS PER 5513 OR 5524 2B FINISH	09/04/2009	No	5.312500	sf	1,360.00
<div>Comments:</div> <div>MATERIAL CERTIFICATION REQ'D UPON DELIVERY</div> <div>Tax Summary: GST 165.90 ONTPST 0.00</div> <div>Entered By: CLAVOIE</div> <div>Approved By:</div>							
Less: included tax						0.00	
Subtotal						3,318.00	
Total tax						165.90	
Total purchase order in						3,483.90	
CAD Dollars							

1018854

POSCO Mill Test Certificate/검사증명서

Certificate No./증명서번호: 081027-PRSE-018-002
Date of Issue/발행일자: Oct. 30, 2008
Surface Finish/표면마무리: NO.2B

Order No./계약번호: 0003445692

PO No./주문번호: 3445692

Supplier/주문자: DAE WOO INTERNATIONAL CORP.

Commodity/품명: STAINLESS COLD ROLLED COIL

Customer/고객사: MAGNA STAINLESS INC.

Spec & Type/규격: ASTM-A240-304

Size/치수	Product No. 제품번호	Quantity 수량	Weight 중량 (kg)	Heat No. 재질번호	POSITION	Tensile/인장시험 YS 0.2% TS EL Hard- (MPa) (%) ness /경도				DIVISION	Chemical Composition/화합성분(%)										
						YS	TS	EL	HRB		C	Si	Mn	P	S	Cr	Ni	Cu	Mo	N	
												-4	-3	-3	-4	-4	-2	-2	-3	-2	-4
1.50x1219xC	QEJ1008B	1	5,942	SC19200	T	281	636	56	83.8	L	558	410	1040	320	38	1811	806	330	11	372	
					B	285	644	55	85.2												
1.50x1219xC	QEJ1008C	1	5,942	SC19200	T	281	636	56	83.8	L	558	410	1040	320	38	1811	806	330	11	372	
					B	285	644	55	85.2												
*** Sub Total (040) ***						17,836 (kg)															
1.85x1524xC	QBK0071A	1	5,477	SC18952	T	273	616	57	83.5	L	542	380	1060	310	74	1824	806	340	13	406	
					B	268	611	57	82.1												
1.85x1524xC	QBK0071B	1	5,477	SC18952	T	273	616	57	83.5	L	542	380	1060	310	74	1824	806	340	13	406	
					B	268	611	57	82.1												
1.85x1524xC	QBK0071C	1	5,487	SC18952	T	273	616	57	83.5	L	542	380	1060	310	74	1824	806	340	13	406	
					B	268	611	57	82.1												
*** Sub Total (050) ***						16,441 (kg)															
1.85x1219xC	QEJ0899A	1	5,347	SE38866	T	299	636	55	87.8	L	583	437	1095	321	36	1816	802	401	13	350	
					B	290	630	56	86.3												
1.85x1219xC	QEJ0899B	1	5,347	SE38866	T	299	636	55	87.8	L	583	437	1095	321	36	1816	802	401	13	350	
					B	290	630	56	86.3												
1.85x1219xC	QEJ0899C	1	5,208	SE38866	T	299	636	55	87.8	L	583	437	1095	321	36	1816	802	401	13	350	
					B	290	630	56	86.3												
*** Sub Total (060) ***						15,902 (kg)															

* Position - T : Top, M : Middle, B : Bottom
* Tensile Test. Direction : Transversal, Gauge Length : 50mm (Rectangular),
YP Method : 0.2% off-set
* Division - L: Ladle Analysis
* Chemical Composition Unit : 2:1/100, -3:1/1000, -4:1/10000, -5:1/100000
* Tr : It is within the standard range (<0.008%) and include trace element.

We hereby certify that the material herein has been made in accordance with the order and specification.

ORIGINAL

Test Certificate is issued according to EN10204 3.1B.
* This Mill Test Certificate cannot be copied for any purpose.

Surveyor To:

POSCO Pohang Works, 5 Dongchon-dong, Nam-gu, Pohang-si, Gyeongsangbuk-do, 790-785, Korea

Chief of material testing section Jo, Won Gook

84107102

10 IMPERIAL CHAMBERS, FIRST FLOOR,
WILSON ROAD BALLARD ESTATE MUMBAI
400 038 INDIA

CUSTOMER :

MAGNA STAINLESS INC (DIV OF CANADIAN
SPECIALTY METALS INC.)
525 MELOCHE AVE. DORVAL
QUEBEC CANADA H9P 2W2

INSPECTION CERTIFICATE

ORDER NO.
075646-AD1

PACKING LIST NO. IMP/100885
INSPECTION NO IMP/100885/5

DATE
22/09/2008

BUNDLE NO.

2715614,2715623,2715684,2715685,2715686,2715719,2715728,2715750

GRADE
T-304

DESCRIPTION :

STAINLESS STEEL BRIGHT BARS L/C NO.: I700298 DT.: 26/09/2008

COLD DRAWN POLISHED

SIZE (INC)	SHAPE	TOLERANCE	LENGTH (FT)	PIECES	WEIGHT (LBS)
1/2	ROUND	ASTM A484	12' R/L	1083	8870

CHEMICAL ANALYSIS

HEAT NO.		CHEMICAL ANALYSIS									
16162											
C	Mn	Si	S	P	Ni	Cr	Mo	Cu	N	Co	
0.031	1.44	0.41	0.020	0.033	8.06	18.20	0.27	0.50	0.052	0.12	

TEST RESULT

.2% YIELD STRENGTH KSI	TENSILE STRENGTH KSI	ELONGATION %	REDUCTION OF AREA %	HARDNESS BHN	GRAIN SIZE
93	109	42	72	221	7

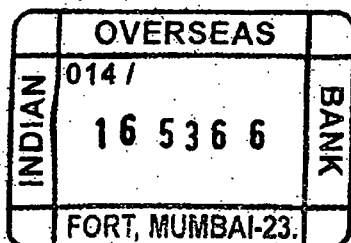
Specification :

MATERIAL CONFIRMS TO ASTM A276-06 COND "A" TYPE 304, ASTM A 262-02A PRACTICE E, ASTM E 112-88(GRAIN SIZE). CERTIFICATION AS PER EN 10204-3.1.

Remarks :

MATERIAL IS FREE MERCURY CONTAMINATION, FREE FROM WELD OR WELD REPAIRS, MINIMUM SOLUTION ANNEALING TEMPERATURE IS 1050 DEGREE
CENTIGRADE. SOAKING TIME: 1 HR / INCH. WATER QUINCHED. MICRO: FREE FROM CONTINUOUS CARBIDE NETWORK ON GRAIN BOUNDARIES, MACRO: GOOD.
COUNTRY OF ORIGIN: INDIA

We hereby certified that the material described above has been tested and complies with the terms of order/contract.



S. Suvarna
WORKS INSPECTOR
S. SUVARNA

8/10/02

2017340

Acciaierie Valbruna S.p.A.



CERTIFICATO DI COLLAUDO
ABNAHMEPRUEFZEUGNIS
INSPECTION CERTIFICATE
CERTIFICAT DE RECEPTION
EN 10204 (2005), 3.1

36100 VICENZA (Italia) - Viale della scienza, 25 z.i.
Stab.: 39100 BOLZANO (Italia) - Via A. Volta, 4

Cliente / Besteller/Purchaser/Clien
VALBRUNA CANADA LTD
8724 HOLGATE CRESCENT
CDN-MILTON, ONT L5T 5Z1-CAN

Produttore: **ACCIAIERIE VALBRUNA S.P.A.**
Hersteller/Usine producer

Avviso di Spedizione: D-VI08026527
Lieferungszettel/Packing list/B.L.

Ordine nr: 809002025 STOCK
Bestell/Your order/Commande

Certificato nr: MEST680179/2008/
Prüfung/Test/Essai

Conferma ordine nr: EI08011083
Works-Our Order/Ref. n.

Marchio di Fabbrica:
Zeichen des Lieferwerkes
Trade mark
Sigle de l'usine productrice



Funzione del Collaudatore:
Stempel des Werkssachverständigen
Inspector's stamp/Prinçon de l'essayeur



Oggetto Prove: - Annealed Cold Drawn
Prüfgegenstand/Item inspected/Étatsage

Tipo di Elaborazione: E+AOD
Erschmelzungen/Annealing process/Mode d'elaboration

Specifiche:
Anforderungen / Requirements / Exigences
VAL CANADA 2 303 A,CF
ASTM A314 97 S30300
DOD-F-24669 6 S30300
(0) SEC.II PT.A 2007 EDITION

AMS 5640 U TYPE1
ASTM A320 2008 B8F
MIL-S-862 B/1 303

ASME SA320 2007 B8F (0)
ASTM A582 2005 S30300
QQ-S-764 B/2 303

Qualità: T-303
Werkstoff/Grade/Qualité

Marca: MV188ZHS MAXIVAL
Markenbezeichnung/Brand/Nomence

Punzonatura: T-303
Kennzeichnung/Marking/Marquage

Pos. nr. Pos. nr. Item nr. Nr. de poste	Oggetto Gegenstand Product description Descript. du produit	Dimensioni - In Abmessungen Dimension Dimension	Tolleranza Toleranz Allowance Tolérance	Lunghezza - Ft Länge Length Longueur	Colata Schmelze Heat Coulée	Pozzi Stückzahl Pieces Pièces	Peso - LB Gewicht Weight Poids	Lotto nr. Losnr. Lot nr. Lot nr.
0130	Round	0,7500	484-06B	12 / 12	422249		6.190	818400620

Sono state soddisfatte tutte le condizioni richieste
Die gestellten Anforderungen sind i. Anlage erfüllt
The material has been furnished in accordance with the requirements
Le matériel a été livré conforme aux exigences

Controllo antisommescolanza: OK
Verwechslungsprüfung: spektralanalytisch durchgeführt
Antimixing testing performed: OK
Contrôle antisoinlage test: r.a.s.

Controllo visivo e dimensionale: soddisfatta le esigenze:
Besichtigung und Ausmessung: ohne Beanstandung
Visual inspection and dimensional checks: satisfactory
Contrôle visuel et dimensionnel: satisfaisant

TEST	Provetta/Probes Specimen/Eprouvette Lap beim Seitz Brake Dam. Disc Lap beim Seitz Lap beim Seitz mm	°F	Posti Saggio Prüfung Vorbereitung Essai 1)	Snervamento Streckgrenze Yield Stress Limite élasticité Rp 0,2% K.S.I.	Snervamento Streckgrenze Yield Stress Limite élasticité	Resistenza Zugfestigkeit Tensile strength Résistance à traction Rm K.S.I.	Allungamento Bruchdehnung Elongation Allongement E 4d %		Strizione Einschnürung Reduction of area Striction RA %		Resilienza Kerul Impact Impact Value Resilience	Durezza Härte Hardness Dureté HB
Valori richiesti 1 Anforderungen/Required values Valeurs demandées		min max		30	-	75	-	35	-	50	-	140 241
A	12,5	68	L	67		99		42		53		237

1) L = longitudinale/éngs. O = transversale/quers. T = Tangenziale/tangentiel

Analisi chimica

Chemische Zusammensetzung/Chemical Analysis/Analyse chimique

Colata Heat Schmelze/Coulée	min max 0,150	1,00	2,00	17,00 19,00	0,60	1,00	8,00 10,00	-	0,15	0,15 0,40	-	-	-	-	-
	C %	Si %	Mn %	Cr %	Mo %	Cu %	Ni %	Co %	P %	S %					
422249	0,037	0,43	1,89	17,34	0,56	0,55	8,35	0,076	0,03	0,32					

Produced without class I-II Ozone depleting substances.
Solution heat treated free from continuous carbide network.
Annealing temperature: 1940°F for 0,5 h/water.
Micro and macro etch test: OK
Material is DFARS Compliant

SA 09/02/04

Melted and manufactured in Italy No welding or weld repair Material free from Mercury or radio-activity contamination
The Quality Management System is Certified acc. Pressure Equipment Directive (97/23/EC) Annex 1, s. 4.3 by TÜEV and LLOYD'S

Vicenza, 09/10/08 VCO008 (Mod. MCEI)	Il collaudatore di stabilimento / der Werkssachverständigen / Works inspector / L'agent d'usine M. Rizzotto	Pagina - 1 di 1
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VIRAJ PROFILES LIMITED

10 IMPERIAL CHAMBERS, 1ST FLOOR,
WILSON ROAD, BALLARD ESTATE,
MUMBAI - 400038 INDIA

TEST CERTIFICATE**CUSTOMER :**

ORDER NO.
P00899

PACKING
LIST NO.
IMP/101282

INSPECTION NO
IMP/101282/13

DATE
21/11/2008

BUNDLE NO.
2035235,2035249,2035286

GRADE
304/304L

DESCRIPTION :
STAINLESS STEEL BRIGHT BARS

SMOOTH TURNED

SIZE (INC)	SHAPE	TOLERANCE	LENGTH (FT)	PIECES	WEIGHT (LBS)
3/8	ROUND	ASTM A484	12' - 14'	962	4822

CHEMICAL ANALYSIS

HEAT NO. 16750

C	Mn	Si	S	P	Ni	Cr	Mo	Cu	N	Co
0.019	1.46	0.42	0.021	0.032	8.10	18.16	0.34	0.42	0.084	0.14

TEST RESULT

.2% YIELD STRENGTH KSI	TENSILE STRENGTH KSI	ELONGATION %	REDUCTION OF AREA %	HARDNESS BHN	GRAIN SIZE
128	137	42	71	221	7

Specification :

MATERIAL CONFIRMS TO ASTM A182/A-182M-08, A276-08 COND A, A479/A479M-08a COND A, A193/A193M-08a B8 CL-1, A320/A320M-05a B8 CL-1, A484 06b, A388/A388M 05 ASME SA182-04, SA479-04, SA 193-04 B8 CL-1, SA320-04 B8 CL-1. IGC SATISFACTORY AS PER ASTM A 262-02a PRACTICE E AMS 5639G, QQ-S-783F, NACE-MR-017E 2002, AISI 304/304L UNS#S30400/S30403. CERTIFICATION AS PER EN 10204-3.1B.

Remarks :

MATERIAL IS FREE FROM MERCURY CONTAMINATION, FREE FROM WELD WELD REPAIRS, MICRO: FREE FROM CONTINUOUS CARBIDE NETWORK ON GRAIN BOUNDARIES, MACRO-GOOD, MINIMUM SOLUTION ANNEALING TEMPERATURE 1050C, SOAKING TIME 1/2 HRS, WATER QUENCHED. COUNTRY OF ORIGIN: INDIA.

We hereby certified that the material described above has been tested and complies with the terms of order/contract.

WORKS INSPECTOR

S. SUVARNA

FB
000580

Acciaierie Valbruna S.p.A.



CERTIFICATO DI COLLAUDO
ABNAHMEPRUEFZEUGNIS
INSPECTION CERTIFICATE
CERTIFICAT DE RECEPTION
EN 10204 (2005), 3.1

36100 VICENZA (Italia) - Viale della scienza, 25 z.l.
Stab.: 39100 BOLZANO (Italia) - Via A. Volta, 4

Cliente / Besteller/Kunden/Client
VALBRUNA CANADA LTD
8724 HOLGATE CRESCENT
CDN-MILTON, ONT L5T 5Z1-CAN

Produttore: **ACCIAIERIE VALBRUNA S.P.A.**
Hersteller/Erzeuger/Usine producteur

Avviso di Spedizione: D-VI08011919
Lieferanten/Packing List/B.L.

Ordine nr: 804001958 STOCK
Bestell-/Your order/Commande

Certificato nr: MEST622937/2008/
Prüfung/Exam/Essai

Conferma ordine nr: EI08003473
Werkz./Our Order/Ref. n.

Marchio di Fabbrica:
Zeichen des Lieferanten
Trade mark
Sigle de l'usine productrice



Punzone del Collaudatore:
Stempel des Werkstoffverständigen
Inspector's stamp/Plombon de l'essayeur



Oggetto Prove: - Annealed Cold Drawn
Prüfgegenstand/Item inspected/Finissage

Tipo di Elaborazione: E+AOD
Erzeugnisart/Working process/Mode d'elaboration

Specifiche:
Anforderungen / Requirements / Exigences

VAL CANADA 2 304/304L A,CF
ASME SA182 2007 S30400/03 0
ASME SA479 2007 S30400/03 3
ASTM A262 2002A PRACTICE E
ASTM A320 2007A B8
NACE MR0175 2003 S30400/03 A 6
(0) SEC.II P.T.A 2007 EDITION
(1) SEC.II P.T.A 2007 EDITION
(3) SEC.II P.T.A 2007 EDITION
(5) * ISO 15156-3

AMS 5639 H S30400
ASME SA193 2007 B8 1
ASTM A182 2007A S30400/03 4
ASTM A276 2006 S30400/03
ASTM A479 2006A S30400/03
QQ-S-763 F 304/304L

AMS 5647 H S30403
ASME SA320 2007 B8 (2)
ASTM A193 2007 B8
ASTM A314 97 S30400/03
MIL-S-862 B/1 304/304L

0Chemical analysis only.
2SEC.II P.T.A 2007 EDITION
4Chemical analysis only.

Qualità: T-304L
Werkstoff/Grade/Qualité

Marca: MVAISL MAXIVAL
Markenbezeichnung/Brand/Marque

Punzonatura: T-304L
Kennzeichnung/Marking/Marquage

Pos. nr. Item nr. Nr. du poste	Oggetto Gegenstand Product description Descript. du produit	Dimensioni - In Abmessungen Dimension Dimension	Tolleranza Toleranz Allowance Tolérance	Lunghezza - Fi Länge Length Longueur	Colata Schmelze Heat Coulée	Pozzi Stützpunkt Pipes Pipes	Peso - LB Gewicht Weight Poids	Lotto nr. Losnr. Lot nr. Lot nr.
0120	Round	20,7500	484-06B	12 / 12	246611		9.827	804600860

Sono state soddisfatte tutte le condizioni richieste
Die gestellten Anforderungen sind in Anlage erfüllt
The material has been furnished in accordance with the requirements
Le matériel a été fourni conforme aux exigences

Controllo antimescolanza: OK
Verwechslungsprüfung: zufriedenstellend durchgeführt
Anmixing testing performed: OK
Contrôle antimélange satisfaisant

Controllo visivo e dimensionale: soddisfa le esigenze:
Besichtigung und Ausmessung: ohne Beanstandung
Visual inspection and dimensional check: satisfactory
Contrôle visuel et dimensionnel: satisfaisant

TEST	Provetta/Probierstück Specimen/Essai Long. mm, Diam. Bred. Diam. Diam. Weld Diam. Thickness Larg. diam. épais mm	°F	Posit. Saggio Ausrichtung Essai Position	Snervamento Streckgrenze Yield Stress Limite élastique Rp 0,2% k.s.i.	Snervamento Streckgrenze Yield Stress Limite élastique	Resistenza Zugfestigkeit Tensile strength Résistance à traction Rm k.s.i.	Allungamento Bruchdehnung Elongation Allongement E 4d %	Strizione Bruchdehnung Reduction of area Striction RA %	Resilienza Kerbschlagarbeit Impact Value Resilience	Durezza Härte Hardness Dureté HB 1/2 r
Valori richiesti 1 Anforderungen/Required values Valeurs demandées		min max		30	-	75	40	50	-	140 235
A	12,5	68	L	64		100	47	68		228

Grain size for ASTM E112

5

1L=longitudinale/längs, O=transversale/quer, T=Tangenziale/tangential

Analisi chimica

Chemische Zusammensetzung/Chemical Analysis/Analyse chimique

Colata Heat Schmelze/Heat	min max 0,030	1,00	2,00	18,00 20,00	1,00	1,00	8,00 10,50	0,040	0,030	0,100	-	-	-	-
246611	C %	Si %	Mn %	Cr %	Mo %	Cu %	Ni %	Co %	P %	S %	N %			
	0,022	0,58	1,81	18,25	0,45	0,40	8,10	0,100	0,030	0,030	0,081			

Produced without class I-II Ozone depleting substances.

Solution heat treated free from continuous carbide network.

Annealing temperature: 1940°F for 0.5 h/water.

Micro and macro etch test: OK

Intergranular corrosion test per ASTM A262 pract. E: ok.

Material is DFARS Compliant

Melted and manufactured in Italy No welding or weld repair Material free from Mercury or radio-activity contamination
The Quality Management System is Certified acc. Pressure Equipment Directive [97/23/EC] Annex 1, s. 4.3 by TÜV and LLOYD'S

Vicenza, 29/04/08 VCO008 (Mod. MCEA)	Il collaudatore di stabilimento / der Werkstoffverständiger / Works inspector / L'agent d'usine M. Rizzotto	Pagina - 1 di 1
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SA 09/02/04